

**REPORT ARISING FROM THE GEOGRAPHIC INFORMATION PROJECTS
PERFORMED JOINTLY IN CHILE BY THE IGM-INACH (PERIOD 2000-2002)**

Report of Current Activities of Chile for 2000-2002

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The following *Chile* organisations / institutes have developed working programmes to conduct research or operational work in the Antarctic in the field of Geodesy, Photogrammetry, Remote Sensing, Geographic Information, Cartography

Military Geographic Institute of Chile
Chilean Antarctic Institute

1. FIELD ACTIVITIES

1.1 Geodetic Data:

The data and the measurements from three (3) geodesic GPS-satellite stations of the First Order have been announced to the international scientific community. These stations, set up and monumented during the campaign in the year 2000 in the Patriot Hills Mountains, are located near the geographic coordinates at: Latitude 80° 20' South and Longitude 81° 25' West. The values were provided to the Scientific Committee for Antarctic Research (SCAR) to be made available worldwide.

1.2 Gravimetric Data :

The data and the measurements from three (3) gravimetric stations have been announced to the international scientific community. These stations, set up and monumented during the campaign in the year 2000 in the Patriot Hills Mountains, are located near the geographic coordinates at: Latitude 80° 20' South and Longitude 81° 25' West. The values were provided to the National Imagery and Mapping Agency of the United States (NIMA – USA) to be made available world-wide.

- Presentation at the annual meeting of the Antarctic Work Group about “GIS and Geodesy on King George Island”, held together with the annual meeting of the Scientific Committee for Antarctic Research (SCAR) at Wuhan, China. (JUNE.2000). Tcl. Rodrigo Barriga explained the geodesic and digital cartography work performed jointly by the IGM and the INACH for King George Island. Subject: “GEODESY AND DIGITAL CARTOGRAPHIC SURVEY IN THE FYLDES PENINSULA”. Mr. Ricardo Jaña explained the Geographic Information System for King George Island performed by the INACH.
- Presentation at the conference of the International Association for Geodesy (IAG), in Budapest, Hungría. Tcl. Rodrigo Barriga described the Geodesic work performed jointly by the IGM and the INACH at Patriot Hills (Sept. 2001). Subject: “GEODESY AT PATRIOT HILLS, CURRENT SITUATION”.
- Presentation at the “Second Chilean Meeting for Antarctic Scientific Research”, in Concepcion. The Geo-Surveying Engineer Mr Juan Montero, presented the work performed jointly by the IGM and the INACH at Patriot Hills. (JUL.2001). Subject: GEODESY AT PATRIOT HILLS, TECHNICAL EXPERIENCE GAINED”.
- Presentation at the “Second Chilean Meeting for Antarctic Scientific Research”, Concepcion July 2001. Major Patricio Espinoza D. Talked about the cartographic work carried using radar satellite images covering King George Island. Subject : “CREATION OF CARTOGRAPHY OF CHILEAN ANTARCTIC TERRITORY USING RADAR IMAGES” (SEPT.2001).
- “Twelfth “RAPAL” Meeting” and “Third Gathering of Latin American Scientists” at Punta Arenas, September 2001. Major Patricio Espinoza D. Talked about the geo-cartographic work performed jointly by the IGM and the INACH in the Patriot Hills and King George Island areas. (SEPT.2001).

Publications:

“Geodesy and Digital Cartographic Survey in the Fyldes Peninsula, King George Island, Antarctica”. Journal “Geo-Spatial Information Science” Quarterly. Edited by the Board of Geomatics and Information Science of Wuhan University, China. Year 2001.

“GEODESY IN PATRIOT HILLS (ANTARCTICA), PRESENT STATUS”.
Proceedings of the IAG 2001 Scientific Assembly, Budapest, Hungría.

5. PLACE NAMES

Place name study of the Patriot Hills area in order to prepare the Digital Cartography of the area.

6 PLANNED ACTIVITIES FOR THE NEXT TWO YEARS

6.1 Geodetic Surveys (*IGM - INACH*)

GPS observation campaigns will be carried out at Patriot Hills

6.2 Remote Sensing (*IGM - INACH*)

Pilot Project of ERS Radar Images will be carried out for Antarctic Peninsula Area.

6.3 Topographic Mapping (IGM - INACH)

A new satellite image map of Patriot Hills at 1:50 000 scale will be produced by IGM

6.4 Geographic Information Activities (*INACH*)

Development of GIS for the Shetlands Islands and Patriot Hills areas.